

Title (en)
BATTERY FRAME, BATTERY PACK, ELECTRIC VEHICLE, METHOD OF ASSEMBLING A BATTERY FRAME, AND METHOD OF ASSEMBLING A BATTERY PACK

Title (de)
BATTERIERAHMEN, BATTERIEPACK, ELEKTROFAHRZEUG, VERFAHREN ZUR MONTAGE EINES BATTERIERAHMENS UND VERFAHREN ZUR MONTAGE EINES BATTERIEPACKS

Title (fr)
CADRE DE BATTERIE, BLOC-BATTERIE, VÉHICULE ÉLECTRIQUE, PROCÉDÉ D'ASSEMBLAGE D'UN CADRE DE BATTERIE, ET PROCÉDÉ D'ASSEMBLAGE D'UN BLOC-BATTERIE

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Abstract (en)
The present disclosure refers to a battery frame (12) for providing structural support for a battery pack (100a, 100b) for retaining rows of stacked battery cells (80a, 80b, 80c, 80d, 80e, 80f), the battery frame (12) comprising: two longitudinal beams (13a, 13b) and a plurality of crossbeams (10a, 10b, 10c, 10d, 10e, 10f, 10z) arranged between and connected to the longitudinal beams (13a, 13b); wherein the plurality of crossbeams (10a, 10b, 10c, 10d, 10e, 10f, 10z) are arranged in parallel to each other and comprises two outer crossbeams (10a, 10z) and at least one inner crossbeam (10b, 10c, 10d, 10e, 10f), wherein the at least one inner crossbeam (10b, 10c, 10d, 10e, 10f) is arranged between the outer crossbeams (10a, 10z); wherein a retaining section (15a, 15b, 15c, 15d, 15e, 15f) for retaining one row of stacked battery cells (80a, 80b, 80c, 80d, 80e, 80f) is provided between any neighboring pair of crossbeams (10a, 10b, 10c, 10d, 10e, 10f, 10z) so that rows of stacked battery cells (80a, 80b, 80c, 80d, 80e, 80f) and the at least one inner crossbeam (10b, 10c, 10d, 10e, 10f) are alternately stackable between the two outer crossbeams (10a, 10z); wherein each of the crossbeams (10a, 10b, 10c, 10d, 10e, 10f, 10z) is connected to the two longitudinal beams (13a, 13b) by a plurality of fasteners (16) extending into a longitudinal direction (L) of the crossbeams (10a, 10b, 10c, 10d, 10e, 10f, 10z) through the longitudinal beams (13a, 13b) and into the crossbeams (10a, 10b, 10c, 10d, 10e, 10f, 10z). The present disclosure also relates to a battery pack (100a, 100b), to an electric vehicle, to a method of assembling a battery frame (12), and to a method of assembling a battery pack (100a, 100b).

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CPC (source: EP KR)
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Citation (applicant)
• EP 3273500 A1 20180124 - SAMSUNG SDI CO LTD [KR]
• US 2020148066 A1 20200514 - SEKAR VIGNESH [US], et al

Citation (search report)
• [XAI] EP 3664186 A1 20200610 - LG CHEMICAL LTD [KR]
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